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COMPLETE SPECIFICATION.

"Improvements in Night Lights and similar Lights."

We, WILLIAM CALDERWOOD, of 83 Hampton Road, Forest Gate, in the County of Essex, and ALFRED EDWARD WEBB, of 315 Strone Road, Manor Park, also in the County of Essex, Directors of a Public Company, do hereby declare the nature of this invention and in what manner the same is to be performed to be particularly described and ascertained in and by the following statement:—

This invention relates to night lights and similar lights and has for its principal object to provide a more improved and simple arrangement whereby the wick shall be more securely fixed in position than has been possible hitherto and from which it shall be impossible to accidentally withdraw it as now so often happens, and also wherein even should the night light be handled whilst burning the displacement of the wick from the centre of the case is prevented and thus all danger of igniting the case due thereto is eliminated.

In previous attempts to provide such an arrangement various means have heretofore been proposed; such as for instance fastening the wick by passing it through a small hole or recess made through the centre of the bottom and subsequently filling in or covering the space left below the bottom with plaster or other material.

In perhaps the most common arrangement now employed a metal disc is used inside as a sustainer or support for the wick, consequently when the material of which the night light is made becomes liquid, the wick is liable to get of the centre of the cup, and especially is this the case if the night light is handled whilst burning. This defect is common to night lights which are burnt in cases and to those burnt in glasses or cases fitted with self-contained sustainers independent of either the glass or case. When this happens (the wick getting out of the centre) it is obvious that the case night light is in danger of igniting, by reason of the flame playing on one side of the paper case, and in the glass night light, the danger is that of cracking the glass, by reason of the uneven distribution of heat from the flame, owing to it being out of the centre of the receptacle.

To obviate these difficulties as far as possible with the case night light, most night light manufacturers stick the wick after it has passed through the metal disc or sustainer, to the bottom of the inside of the case; this is done with an adhesive compound such as sealing wax, but as this material melts with the heat from the burning night light the danger is only minimised and not removed; to still further reduce this danger, the night light is placed in water whilst burning, so that the material at the bottom shall be kept cool, and thus prevent in a measure the flame melting the adhesive compound, and also to prevent the liquid night light material from running away between the sides of the cup and the bottom as when this happens the night light burns short time.

According to our present invention, in order to attain in a more simple and effective manner the before stated objects and to overcome the present disadvantages, we pass the wick through a tapered or conical hole in the bottom circular disc which hole is made of considerably larger diameter than the wick used, and secure it in place by pouring into the said conical hole around the wick an adhesive compound that is not affected by heat. A small metal disc

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or its equivalent is passed over the wick on the inside surface of the bottom to extinguish the flame when the night light has been burnt out.

In order that this invention may be more clearly understood I will now describe the same with reference to the accompanying sheet of drawings in which:—

Figure 1 is an inverted plan view of the bottom disc;

Figure 2 is a cross section of a night light case constructed according to this invention;

Figure 3 is a similar view to Figure 2 showing the wick fixed in position;

Figure 4 is a cross section of a slightly modified form of bottom disc.

Referring more particularly to the construction shown in Figures 1, 2 and 3 of the drawings.

A stout bottom disc *a* of cardboard, leather board, wood or the like is cut to the same diameter as the night light, and in the centre of this said disc is drilled a hole *b*, larger in diameter than the diameter of the wick *c* to be used; this hole *b* is also made tapering from the bottom or underside upwards. The disc is then placed inside the paper case or cup *c* into which the night light proper is to be placed as heretofore to the required depth; a small metal disc *d* as at present used as a sustainer is placed between the night light proper and the bottom *a* of the case; this disc however in the present instance only serves for the purpose of extinguishing the flame when the night light material has been consumed. The wick *c* of the night light is first threaded through the metal disc *d* and the tapered hole *b* already referred to, and then an adhesive compound *f* such as glue, or other substance of a similar nature which is impervious to the melted wax or heat from the night light whilst burning, is poured round the wick *c* and the underside of the cup *c*, this compound *f* fills up the conical space *b* round the wick *c* and securely fastens the metal disc *d* and the wick *c* to the bottom *b* of the cup *a*, making the whole conform on the underside to a countersunk rivet and on the inside to a cupheaded rivet, and thereby making a substantial and effective wick sustainer. The liquid adhesive compound having been run round the entire bottom of the cup also completely fastens the cardboard disc to the sides making same secure from any leakage of melted wax; this obviates any necessity for placing these night lights in water whilst burning.

The wick in a night light constructed as herein described cannot possibly get out of the centre if handled and the danger of fire in consequence of the wick falling over by reason of it not being properly secured is entirely removed.

Whilst the above method fulfils all that is required to successfully carry out our invention, other means as indicated in Figure 4 of the drawings may be adopted which will also remove the necessity for placing a metal disc *d* inside the cup; to do this the hole drilled through the bottom disc *a* already described is made much larger, and a metal eyelet *g* is then fastened through it; the wick *c* would then pass through the eyelet *g* in a similar manner to that already described in the foregoing, and the whole made secure with the adhesive compound *f* in the same way.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed we declare that what we claim is:—

1. In a night light securing the wick to the bottom circular disc of the case by passing it through a tapered or conical hole formed in its centre and in which it is fixed by an adhesive compound for the purpose described.
2. In a night light as claimed in the first claim the arrangement in conjunction with the said fixing means of a metal disc or flame extinguisher substantially as described.
3. In a night light as claimed in the first claim placing a metal eyelet in the bottom disc for the purpose described.

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4. The improved arrangements for securing the wick in position substantially as described with reference to Figures 1, 2 and 3 or to Figure 4 of the drawings.
5. The improved night light constructed as described and adapted to burn without being immersed in water.

5 Dated this 3rd day of February 1909.

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Fig. 1.

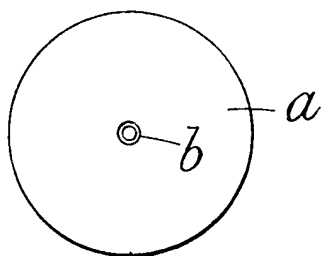


Fig. 2.

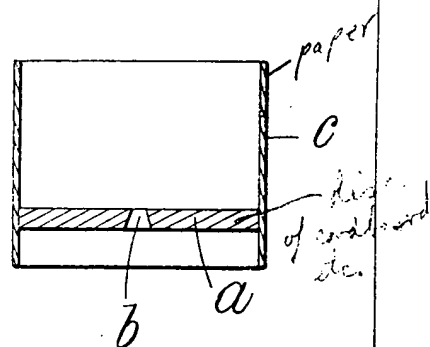


Fig. 3.

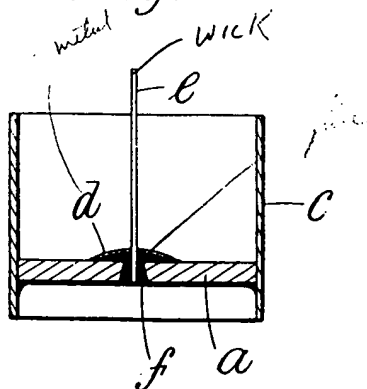
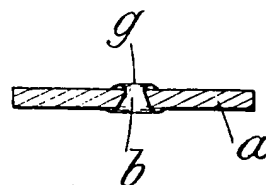


Fig. 4.



[This Drawing is a reproduction of the Original on a reduced scale.]

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